



## Response to SAGES Recommendations Regarding COVID-19

April 2020

Dear Valued Customer:

As a result of the outbreak of COVID-19, the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) has recommended a series of precautionary measures intended to protect patients, surgeons, and staff<sup>1</sup>. At Olympus, we share the same commitment to the health and safety of our customers and employees by remaining agile in these unprecedented times to address the demands of a rapidly changing healthcare environment.

While the information around the COVID-19 virus is constantly evolving, the potential of aerosolization as a mode of transmission during laparoscopy remains a possibility. Surgical smoke is the gaseous by-product produced during laparoscopic and open procedures that is known to contain viruses, chemicals, blood and tissue particles, and bacteria<sup>2</sup>. Healthcare workers in the perioperative environment may be at risk of exposure to aerosolized particles created as a result of the release of surgical smoke<sup>3</sup>.

For this reason, SAGES has recommended using smoke evacuation with filtration for CO<sub>2</sub> that escapes the abdomen during and after the procedure. Additionally, measures should be taken to prevent the backflow of contaminated intra-abdominal CO<sub>2</sub> into the insufflator when the intra-abdominal pressure is higher than the pressure within the insufflator.

### Olympus Smoke Evacuation and Insufflation Portfolio

The Olympus UHI-4 (High Flow Insufflation Unit with Smoke Evacuation capabilities) is intended to insufflate the abdominal cavity and provides automatic suction and smoke evacuation to facilitate laparoscopic observation, diagnosis, and treatment. Please note the Olympus 72-00162-0 and WA950007A smoke evacuation suction tubing does not contain an in-line filter.

If the abdomen experiences an overpressure scenario while the Relief Mode is Active, the UHI-4 will work to relieve the excess CO<sub>2</sub>. Either the 72-00163-0 insufflation tubing with ULPA filter or the WA95005A insufflation tubing with HEPA filter (0.027 microns at an efficiency of at least 99.999%) must be used when Relief Mode is Active.

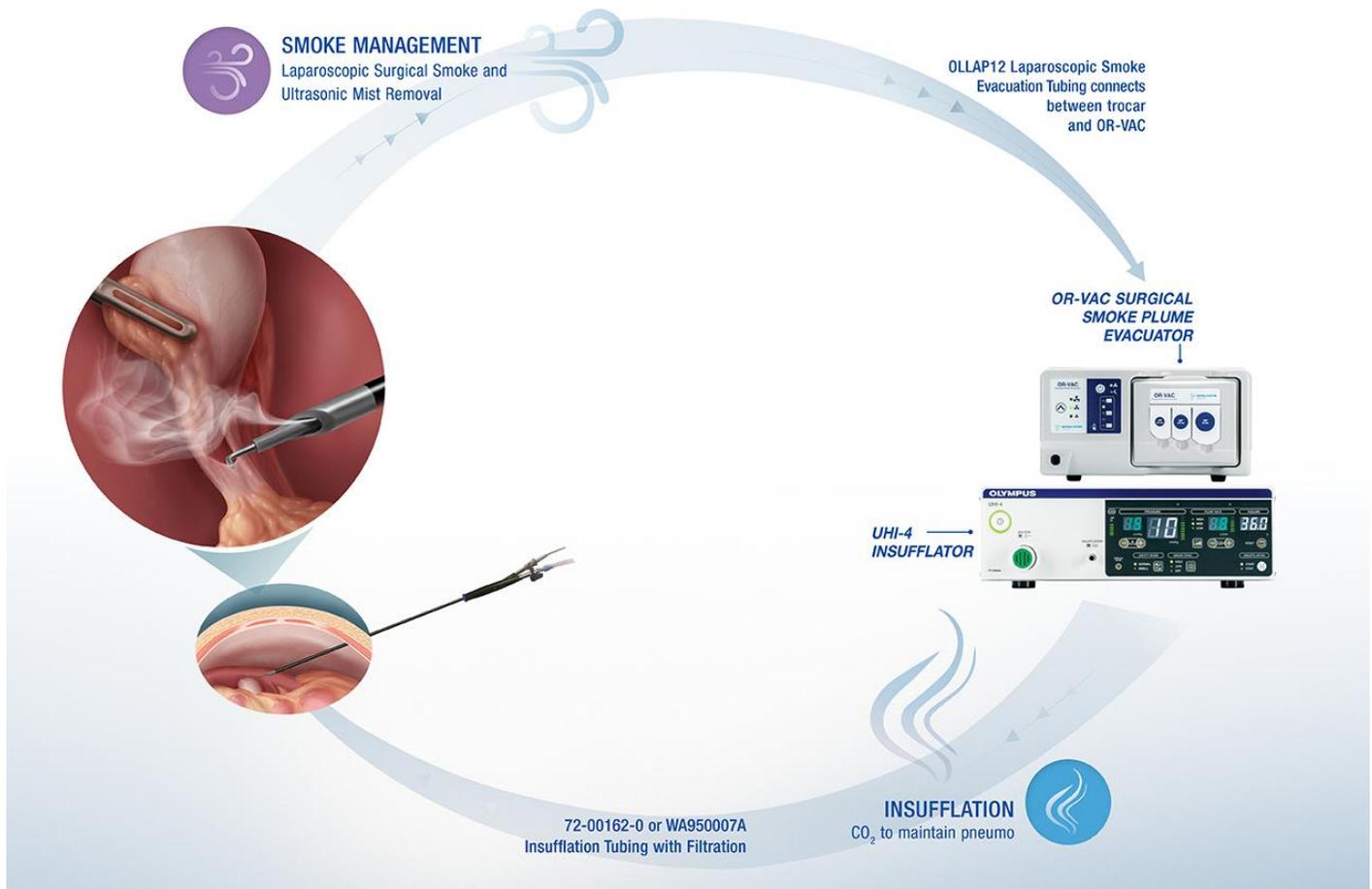
Olympus offers the OR-VAC Surgical Smoke Plume Evacuator for both open and laparoscopic procedures. It contains a ULPA filter that captures particulates and micro-organisms from 0.1 to 0.2 microns at 99.999% efficiency.

At the current time, Olympus recommends utilizing the UHI-4 for insufflation and the OR-VAC for smoke evacuation as shown in the diagram below. This solution offers filtration of incoming CO<sub>2</sub> and filtration of evacuated smoke both down to a level of 0.1 micron or less (depending on the filter set described above). Please refer to the respective instruction manuals for further guidance and appropriate labeling.

This document is intended as a resource for customer questions that may arise as a result of COVID-19 and will be updated as new evidence or solutions arise. For additional information on the smoke evacuation and insufflation portfolio, please contact your Olympus representative.

Olympus is continually working to improve upon how we address healthcare needs and will always strive to meet new challenges with innovative solutions. We will continue to monitor the situation in accordance with the company mission of making people's lives healthier, safer and more fulfilling around the world.

## Laparoscopic Surgical Smoke Management



Olympus Insufflation and Smoke Evacuation Configuration

1. SAGES RECOMMENDATIONS REGARDING SURGICAL RESPONSE TO COVID-19 CRISIS [<https://www.sages.org/recommendations-surgical-response-covid-19>]
2. Liu Y, Song Y, Hu X, et al. Awareness of surgical smoke hazards and enhancement of surgical smoke prevention among the gynecologists. J Cancer. 2019;10:2788–2799.
3. Surgical smoke may be a biohazard to surgeons performing laparoscopic surgery. Choi SH, Kwon TG, Chung SK, Kim TH. Surg Endosc. 2014, 28 (8): 2374-80.